



IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Confirmation No. 1837

James A. DiCARLO, et al.

Examiner: Not Yet Assigned

Application No.: 10/777,630

Group Art Unit: 1732

Filed: February 13, 2004

Attorney Dkt. No.: 61011.00006

For: METHODS FOR PRODUCING HIGH-PERFORMANCE SILICON CARBIDE FIBERS, ARCHITECTURAL PREFORMS, AND HIGH-TEMPERATURE COMPOSITE STRUCTURES

**RESPONSE TO RESTRICTION REQUIREMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

February 16, 2007

Sir:

The Office Action dated January 16, 2007 has been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

The Office Action of January 16, 2007, presented a restriction requirement, requiring election between one of the following five species of the inventions:

Species A, recited in claims 1, 2, 4-7, 10-13 and 16-19, is drawn to a method for reducing performing stresses within fibers wherein the composition of the ceramic fiber type, the total preforming stress state, the processing temperature and the hold time, and the composition, the pressure, and the flow rate are pre-selected to allow minimal loss in an average tensile strength of the fibers, to allow the thermally treated sample to achieve a more technically advantageous preform shape;

Species B, recited in claims 3, 4, 5, 8, 10-13 and 16-19, is drawn to a method for producing high-strength ceramic fibers and ceramic fiber architectural preforms with an in-situ grown coating on each fiber surface with a composition different than that of the bulk fiber;

Species C, recited in claims 9-13 and 16-19, is drawn to a method for producing high-strength ceramic fibers and ceramic fiber architectural preforms with reduced boron in the bulk of each fiber;

Species D, recited in claims 14-19, is drawn to a method for producing high-strength ceramic fibers and ceramic fiber architectural preforms with boron containing surface coatings on each fiber; and

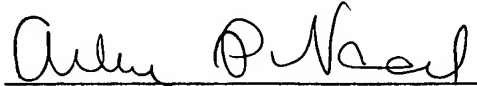
Species E, recited in claims 20-27, is drawn to a method for producing a SiC fiber-reinforced composite material structure with improved properties.

Applicants respectfully elect to prosecute the subject matter of Species B, recited in claims 3, 4, 5, 8, 10-13 and 16-19, drawn to a method for producing high-strength ceramic fibers and ceramic fiber architectural preforms with an in-situ grown coating on each fiber surface with a composition different than that of the bulk fiber. Applicants therefore respectfully request timely consideration on the merits.

Applicants reserve the right to file a divisional application on the non-elected claims at any point prior to the termination of the proceedings in the subject application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Arlene P. Neal', is written over a horizontal line.

Arlene P. Neal  
Attorney for applicant(s)  
Reg. No. 43,828

**Customer Number 32294**  
SQUIRE, SANDERS & DEMPSEY LLP  
14<sup>TH</sup> Floor  
8000 Towers Crescent Drive  
Tysons Corner, Virginia 22182-2700  
Telephone: 703-720-7800  
Fax: 703-720-7802

APN:jkm